

Index of Contributors

Adler, Norman T., 21-32

Balthazart, Jacques, 308-324

Barfield, Ronald J., 33-43

Beer, Colin G., xiii-xiv

Beyer, Carlos, 268-269, 270-281

Blaustein, Jeffrey D., 400-414

Buntin, John D., 252-267

Burger, Joanna, 170-186

Cheng, Mei-Fang, ix, xi, 1-3, 4-12

Crews, David, 187-198

Crowley, William R., 423-436

Diakow, Carol, xiii-xiv, 325-330

Erikson, Carl J., 13-20

Feder, Harvey H., ix, xi, 352-353

Fischette, Christine T., 437-444

Fleming, Alison, 234-251

Gibson, Marie J., 53-63

González-Mariscal, Gabriela, 270-281

Harding, Cheryl F., 371-378

Herrenkohl, Lorraine Roth, 120-128

Inman, Barbee L., 44-52

Johns, Margaret A., 148-157

Komisaruk, Barry R., ix, xi, 1-3, 64-75,
268-269

Landau, I. Theodore, 379-388

Lazar, J. Wayne, xiii-xiv

Lenington, Sarah, 141-147

Lott, Dale F., 129-134

Mayer, Anne D., 216-225

Michel, George F., 158-169

Moore, Celia L., 108-119

Morin, L. P., 331-351

Nock, Bruce, 415-422

Numan, Michael, 226-233

O'Connor, Lynn H., 437-444

Reboulleau, Christian P., 445-452

Rodriquez-Sierra, Jorge F., 293-307

Rosenblatt, Jay S., 199-201

Schumacher, Michael, 308-324

Siegel, Harold I., ix, xi, 202-215

Steinman, Judith L., 64-75

Stern, Judith M., 95-107

Storey, Anne, 135-140

Terkel, Joseph, 76-94

Thomas, David A., 33-43

Thornton, Janice E., 362-370

Toner, James Patrick, Jr., 21-32

Wade, George N., 389-399

Whalen, Richard E., 354-361

Williams, Christina L., 282-292

Wilcox, Joseiah N., 453-460



Subject Index

Androgen metabolism, role in activation of male behavior, 371-377
 Androgens, effects on energy balance, 389-397
 Antiestrogens, 379-382
 Avian breeding cycle, role of female vocalizations in the, 44-52

Behavior
 avian parental, prolactin and, 252-264
 copulatory, effects on sperm, 21-30
 estrogens and, 282-290
 hormonal control of, 354-358
 incubation, avian, prolactin and, 252-264
 individual behavioral response mediates endocrine changes, 4-11
 male, role of androgen metabolism in activation of, 371-377
 maternal, *see* Maternal behavior
 mating, neuroendocrine mechanisms regulating, 188-192
 nest-cooing, in female ring doves, 5-9
 regulator of hormonal mechanisms and reproduction, 1-198
 reproductive
 approaches to study of, 325-329
 as a phenotypic correlate of genotype, 141-147
 biochemical bases of hormonal action on, 352-460
 prenatal stress and, 120-128
 reproductive social, intraspecific variation in, 129-134
 serotonin-dependent, hormone effects on, 437-442
 sexual
 effect of estrogen and progesterone on, 400-411
 heterotypical, 362-368
 hormones and, 268-351
 sexual differentiation of, 108-119
 steroid hormone antagonists and, 379-384
 Behavioral control of reproduction, genital-stimulation and, 64-75
 Biological clocks, 331-348
 Birds
 colonial, role of perception in habitat selection in, 170-186
 female vocalizations, role of, 44-52
 prolactin and parental behavior in, 252-264
 See also Doves, ring
 Brain, the
 analysis of steroid action on gene expression in, 453-460

estrogens and development of, 282-290
 regulation of pro-opiomelanocortin in, 455
 steroid receptors and hormone action in, 400-411
 Bruce effect, 135-140

Catecholamine-neuropeptide interactions, 423-431
 Cell lines, neuronal clonal, differentiation of, 445-450
 Clocks, biological, 331-348
 Clonal cell lines, neuronal, differentiation of, 445-450
 Contact stimulation, maternal, psychobiology and, 95-107
 Copulatory behavior, effects on sperm, 21-30

Doves, ring
 behavioral response mediates endocrine changes in, 1-11
 events between male courtship and female's follicular growth, 5
 experiential influences on parental care, 158-169
 female, social induction of ovarian response in, 13-18

Endocrine changes mediated by behavioral response, 4-11
 Endocrinology, comparative behavioral, 187-198
 Energy balance, sex steroids and, 389-397
 Estradiol
 effect on behavior, 400-411
 effect on energy balance, 389-397
 Estrogen
 and development of brain and behavior, 282-290
 effect on behavior, 400-411
 effect on energy balance, 389-397
 organizational effects of, 293-306

Feedback, proprioceptive, 7-9
 Fertility, effects of copulatory behavior on, in rats, 21-30
 Follicular growth, female ring dove, male courtship and, 5

Gene expression in the brain, steroid action on, 453-460
 Genital stimulation as trigger for neuroendocrine and behavioral control of reproduction, 64-75

Genital tract

behavioral responses to stimulation of the, 66-73

neuroendocrine responses to stimulation of the, 64-66

Gonadal hormones, *see* Hormones, gonadal
Gonadal steroids, energy balance and, 389-397

Habitat selection, role of perception in, 170-186

Heterotypical sexual behavior, 363-368

Homeokinetics, 331

Homografts, preoptic, analysis of, 53-63

Hormonal factors, 129-134

Hormones

control of behavior, 354-358

effects on serotonin-dependent behaviors, 437-442

gonadal

dimorphic sexual behavior and, 362-363

lordosis in males and, 365

mounting by females and, 364-365

maternal behavior in rats, 234-248

parental behavior and, 199-267

regulators of reproductive behavior, 199-351

sex steroids and energy balance, 389-397

sexual behavior and, 268

steroid receptors and hormone action in the brain, 400-411

Hypothalamic cyclic AMP, lordosis in rodents and, 270-278

Hypothalamus-pituitary-ovarian axis, 5, 9

Imprinting, ovarian activity and, 15

Incubator behavior, avian, prolactin and, 252-264

Lactational diestrus not a pseudopregnancy, 86-87

Lordosis, 365

antagonism of estrogen effect on, 379-380
hypothalamic cyclic AMP in facilitation of, 270-278

noradrenergic regulation of, 416

Maternal behavior, 199-201

hormonal basis of, in rats, 202-215

neural circuitry of, 228-231

neural control of, 243-278

rat, psychobiology of, 234-248

role of medial preoptic area in regulation of, in rats, 226-233

Maternal responsiveness during the prepartum period in laboratory rats, 216-225

Mating behavior, neuroendocrine mechanisms regulating, 188-191

Metabolic factors, 129-134

Metabolism, androgen, role in activation of male behavior, 371-377

Morphological differentiation of neuronal clonal cell lines, 445-450

Mounting by females, 364

Myoclonus, 438-439

Nest-cooing behavior, in female ring doves, 5-9

Nest defense during prepartum period in laboratory rats, 216-225

Neurochemical actions of ovarian steroids, 424-431

Neuroendocrine control of reproduction, genital stimulation and, 64-75

Neuroendocrine regulation, reproductive, 423-431

role of preoptic area in, 53-63

Neuroendocrinology of induced pseudopregnancy, 76-94

Neuron clonal cell lines, differentiation of, 445-450

Neuropeptide-catecholamine interactions, 423-431

Noradrenergic regulation of progesterin receptors, 415-419

Nutritional effects, 132

Ovarian activity

imprinting and, 15

male inhibition of, 16-17

Ovarian response, social induction of, in female ring dove, 13-18

Oxytocin, maternal behavior and, 211-212

Parental behavior

avian, prolactin and, 252-264

hormones and, 199-267

Parental care, ring dove, experiential influences on, 158-169

Perception, role of, in habitat selection, 170-186

Physiological time, concept of, 331-348

Pregnancy disruptions, advantages of, 135-139

Prenatal stress, as disruptive factor in reproductive psychophysiology, 120-128

Preoptic area

medial, role of, in regulation of maternal behavior in rats, 226-233

role in neuroendocrine regulation of reproduction, 53-63

Preoptic homografts, functional, analysis of, 53-63

Prepartum period, maternal responsiveness and nest defense during, in laboratory rats, 216-225

- Primer effect, 15
- Progesterone
 effect on behavior, 400-411
 effect on energy balance, 389-397
- Progestin
 noradrenergic regulation of progestin receptors, 415-419
- Prolactin, parental behavior and, 252-264
- Prolactin surges
 copulatory behavior and, 77-78
 mnemonic control over, 82-86
 photoperiodicity of, 81-82
- Pro-opiomelanocortin, regulation of, in the brain, 455
- Proprioceptive feedback, effects of, 7-9
- Pseudopregnancy
 adrenergic and cholinergic mediation of, 78-79
 electrophysiological mediation of, 79-80
 induced, neuroendocrinology of, 76-94
 lactational diestrus is not, 86-87
 noncoitally induced, 87-90
- Psychobiology
 maternal, contact stimulation and, 95-107
 of rat maternal behavior, 234-248
- Puberty, organizational effects of estrogen at, 293-306
- Q**uail, sexual differentiation in, 308-321
- R**ats
 contact stimulation and maternal psychobiology in, 95-107
 effects of copulatory behavior on sperm in, 21-30
 hormonal basis of maternal behavior in, 202-215
 laboratory, maternal responsiveness and nest defense during prepartum period in, 216-225
 mating calls, 33-40
 psychobiology of maternal behavior in, 234-248
 role of medial preoptic area in regulation of maternal behavior in, 226-233
 role of ultrasonic vocalizations in regulation of reproduction in, 33-42
- Reproductive behavior, *see* Behavior, reproductive
- Reproductive neuroendocrine regulation, 423-431

- Rhythms, biological, 331-348
- Ring doves, *see* Doves, ring
- Rodents, lordosis in, hypothalamic cyclic AMP and, 270-278

- S**erotonin behavioral syndrome, 439-440
- Sex steroids, energy balance and, 389-397
- Sexual behavior, *see* Behavior, sexual
- Sexual differentiation, 308-321
 of behavior, 108-119
 steroid hormone antagonists and, 382-383
- Social behavior, reproductive, intraspecific variation in, 129-134
- Social induction of ovarian response in female ring dove, 13-18
- Social interaction, behavioral response mediates endocrine changes induced by, 4-11
- Sperm, effects of copulatory behavior on, 21-30
- Steroid action on gene expression in the brain, 453-460
- Steroid hormone antagonists, behavior and, 379-384
- Steroid hormones, effects on cell differentiation, 447
- Steroids, sex, and energy balance, 389-397
- Stimulation, contact, and maternal psychobiology, 95-107
- Stress, prenatal, reproductive behavior and, 120-128

- T**estosterone, effect on energy balance, 389-397

- Time, physiological, concept of, 331-348

- U**ltrasonic vocalizations, role in regulation of reproduction in rats, 33-42

- V**ocalizations
 female, their role in avian breeding cycle, 44-52
 ultrasonic, role in regulation of reproduction in rats, 33-42
- Vomerolateral organ, role of, 148-157

- W**omen, contact stimulation and maternal psychobiology in, 95-107